

FIELD #	MIRN FIELD NAME	FIELD DEFINITION	Field Size	Field Type	FORMAT	FIELD REQUIREMENT <u>Bundled Service TO Direct Access Process # 1</u> Required = R Conditional = C Optional = O	FIELD REQUIREMENT <u>Direct Access TO Bundled Service Process # 2</u> Required = R Conditional = C Optional = O
<u>1</u>	<u>Date MIRN Sent</u>	<u>Date MIRN Sent</u>	<u>10</u>		<u>YYYY/MM/DD</u>	<u>R</u>	<u>R</u>
<u>42</u>	UDC Name	UDC where meter work was completed ____Ajo <u>APS: Arizona Public Service Company</u> <u>CUC: Citizens Utilities Company</u> <u>DVEC: Duncan Valley Electric Cooperative Inc</u> <u>GCEC: Graham County Electric Cooperative Inc</u> <u>MEC: Mohave Electric Cooperative Inc</u> ____Morenci <u>NEC: Navapache Electric Cooperative Inc</u> <u>SRP: Salt River Project</u> <u>TEP: Tucson Electric Power Company</u> <u>TRICO: Trico Electric Cooperative Inc</u>	<u>30</u>	<u>C</u>		<u>R</u>	<u>R</u>
<u>3</u>	<u>Meter Activity</u>	<u>Type of work performed at the site</u> <u>1 = Meter Exchange</u> remove and set a meter at the same time. <u>2 = Upgrade Meter</u> modify functionality of existing meter with IDR, DPI and/or modem <u>3 = Meter Removal</u> remove a meter without installing another meter <u>4 = Reprogramming/Reconfiguring</u> changes to existing meter at site <u>5 = Meter Upgrade/Reprogramming</u> upgrading and programming to the existing meter at the site	<u>1</u>	<u>C</u>	<u>1</u> <u>2</u> <u>3</u> <u>4</u> <u>5</u>	<u>R</u>	<u>R</u>
<u>24</u>	Transaction Ref #	Unique transaction identification number assigned by the originator of this transaction	<u>30</u>	<u>C</u>		<u>R</u>	<u>R</u>
<u>3</u>	Exchange Meter	Removing and setting a meter at the same time			<u>X</u>	<u>C</u>	
	Upgrade Meter	Modify functionality of existing meter with IDR, DPI and/or a modem			<u>X</u>	<u>C</u>	
	Meter Removal	Removing a meter without installing another meter			<u>X</u>	<u>C</u>	
	Meter Reprogram/Reconfig	Reprogramming/reconfiguring the meter at the site			<u>X</u>	<u>C</u>	

MIRN DATA ELEMENTS

Sample – proposed changes for ~~10/25/00~~ 11/29/00

TYPE: _C = Character _I = Integer

<u>FIELD #</u>	<u>MIRN FIELD NAME</u>	<u>FIELD DEFINITION</u>	<u>Field Size</u>	<u>Field Type</u>	<u>FORMAT</u>	<u>FIELD REQUIREMENT Bundled Service TO Direct Access Process # 1</u> <u>Required = R</u> <u>Conditional = C</u> <u>Optional = O</u>	<u>FIELD REQUIREMENT Direct Access TO Bundled Service Process # 2</u> <u>Required = R</u> <u>Conditional = C</u> <u>Optional = O</u>
	<u>Date MIRN sent</u>	<u>Date MIRN Sent YYYYDDMM</u>			YYYY/MM/DD	R	
<u>5</u>	<u>Lost kW</u>	<u>Calculated kW or displayed instantaneous kW for meters out of the socket 15 minutes or greater</u>	<u>6</u>	<u>C</u>		<u>C</u>	<u>C</u>
<u>6</u>	<u>DASR Tracking #</u>	<u>Unique number assigned by the originator submitting the DASR (Direct Access Service Request). First 13 (9 + 4) digits are the originator's Duns # followed by 9 user-specified digits. All future communication about this transaction will contain this tracking number</u>	<u>22</u>	<u>C</u>		R	R
<u>7</u>	<u>UNI – Universal Node ID</u>	<u>Unique permanent identification number assigned to each service delivery point of the UDC's distribution network</u>	<u>19</u>	<u>C</u>		R	R
<u>8</u>	<u>Service Address</u>	<u>Address of the metering site</u>	<u>50</u>	<u>C</u>		R	R
<u>9</u>	<u>Customer Name</u>	<u>Name of Customer responsible for account</u>	<u>42</u>	<u>C</u>		R	R
<u>510</u>	<u>Work Completion Date</u>	<u>Date that the meter work occurred</u>	<u>10</u>		YYYY/MM/DD	R	R
<u>611</u>	<u>New Meter Set Time</u>	<u>Set time is based on specific meter activity:</u> Exchange: Time reflects when new meter is _ installed Upgrade: Time reflects when meter upgrade is complete Removal: Time reflects when meter is removed and no new meter is installed Reprogram: Time reflects when the meter was reprogrammed	<u>7</u>		<u>Time will convert to military time. i.e. 00:00 space "p". Tab off field to convert</u>	R	R
<u>12</u>	<u>Existing Meter Removal Time</u>	<u>Time reflects when the meter was removed</u>	<u>7</u>		<u>Time will convert to military time. i.e. 00:00 space "p". Tab off field to convert</u>	R	R
<u>713</u>	<u>ESP</u>	<u>Acronym ID for ESP submitted on DASR</u>	<u>30</u>	<u>C</u>		R	R
<u>814</u>	<u>MSP</u>	<u>Acronym ID for MSP submitted on DASR</u>	<u>30</u>	<u>C</u>		R	C
<u>9</u>	<u>UNI – Universal Node ID</u>	<u>Unique permanent identification number assigned to each service delivery point of the UDC's distribution network</u>				R	
<u>4015</u>	<u>UDC Account Number</u>	<u>UDC account number for customer</u>	<u>20</u>	<u>C</u>		R	R

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Sample – proposed changes for ~~10/25/00~~ 11/29/00

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44	Service Address	Address of the metering site				R	
4216	City/Town/County	City/Town/County in which the metering site is located	30	C		R	R
13	Customer Name	Name of Customer responsible for account				R	
4417	Business Name	Business name of the account, if different from customer name	50	C		RC	C
4518a	Existing/new AZ Meter Number	UDC meter number Unique number assigned by the UDC. Number located on face plate of meter	17	C		R	R
18b	New Meter AZ Meter Number	Unique number assigned by the UDC. Number located on face plate of meter	17	C		R	O
19a	Existing Meter Serial Number	Serial number on face plate of meter	10	C		R	R
19b	New Meter Serial Number	Serial number on face plate of meter	10	C		R	O
46	Existing/new Meter Serial Number	Serial number on face plate					
20a	Existing Meter AZ Kvarh Meter Number	Unique number assigned by the UDC. Number located on face plate of meter	17	C		C	C
20b	New Meter AZ Kvarh Meter Number	Unique number assigned by the UDC. Number located on face plate of meter	17	C		C	O
17	Existing/new AZ Kvarh Meter Number	UDC Kvarh meter number				C	
21a	Existing Meter Kvarh Meter Serial Number	Serial number on face plate of meter	10	C		C	O
21b	New Meter Kvarh Meter Serial Number	Serial number on face plate	10	C		C	O
48	Existing/new Kvarh Meter Serial Number	Serial number on face plate				C	
49	Existing/new meter date display				use leading zero	C=existing R=new	
22a	Existing Meter – Meter Date Display #	Display segment for the meter date	2	C		C	C

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22b	Existing Meter – Meter Date Read	Display meter date when the meter is removed/installed	10	C	No formatting, should be exactly what is on display	C	C
22c	New Meter – Meter Date Display #	Display segment for the meter date	2	C		C	O
22d	New Meter – Meter Date Read	Display meter date when the meter is removed/installed	10	C	No formatting, should be exactly what is on display	C	O
23a	Existing Meter – Meter Time Display #	Display segment for the meter time	2	C		C	C
23b	Existing Meter – Meter Time Read	Display meter time when the meter is removed/installed	10	C	No formatting, should be exactly what is on display	C	C
23c	New Meter – Meter Time Display #	Display segment for the meter time	2	C		C	O
23d	New Meter – Meter Time Read	Display meter time when the meter is removed/installed	10	C	No formatting, should be exactly what is on display	C	O
19a	Existing/new meter date read	Internal meter date when the meter is removed/installed			no formatting, should be exactly what is on display		
20	Existing/new meter time display				use leading zero		
20a	Existing/new meter time read	Internal meter time when the meter is removed/installed			no formatting, should be exactly what is on display		
24a	Existing Meter – Total kWh Read Display #	Display segment for total kWh	2	C		C	R

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24b	Existing Meter – Total kWh Read	Five (5) dial kWh read of the meter at the time of removal/installation.	5	C	Fill all values shown on display	R	R
24c	New Meter – Total kWh Read Display #	Display segment for total kWh	2	C		R	O
24d	New Meter – Total kWh Read	Five (5) kWh read of the meter at the time of removal/installation.	5	C	Fill all values shown on display	R	O
25a	Existing Meter – Total kW Read Display #	Display segment for total kW	2	C		C	C
25b	Existing Meter – Total kW Read	Total demand read of the meter at the time of removal/installation. Fill all values shown on display. TWO decimal places only	6	C	Fill all values shown on display	C	C
25c	New Meter – Total kW Read Display #	Display segment for total kW	2	C		R	O
25d	New Meter – Total kW Read	Total demand read of the meter at the time of removal/installation. Fill all values shown on display. TWO decimal places only	6	C	Fill all values shown on display	R	O
26a	Existing Meter – Total Kvarh Reads Display #	Display segment for the Kvarh read	2	C		C	C
26b	Existing Meter – Total Kvarh Reads	Total Kvarh read of the meter at the time of removal/installation.	5	C	Fill all values shown on display	C	C
26c	New Meter – Total Kvarh Reads Display #	Display segment for the Kvarh read	2	C		C	C
26d	New Meter – Total Kvarh Reads	Total Kvarh read of the meter at the time of removal/installation	5	C	Fill all values shown on display	C	C
24	Existing/new total kWh read display				use leading zero		
21a	Existing/new total kWh read – read	Total kWh read of the meter at the time of removal/installation			use leading zero	R	

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22	Existing/new total kW read display				use leading zero		
22a	Existing/new total kW read read	Total demand read of the meter at the time of removal/installation			use leading zero		
23	Existing/new total Kvarh read display				use leading zero	C	
23a	Existing/new total Kvarh read read	Total Kvarh read of the meter at the time of removal/installation			use leading zero	C	
24-35	Existing/new TOU read display 1-12				use leading zero	C	
24-35	Existing/new TOU read read 1-12	Time of Use read of the meter at the time of removal/installation			use leading zero	C	
27-38a	Existing Meter – TOU Read Display #	Display segment for TOU reads	2	C		C	C
27-38b	Existing Meter – TOU Read	Time of Use read of the meter at the time of removal/installation.	5	C	Fill all values shown on display	C	C
27-38c	New Meter – TOU Read Display #	Display segment for TOU reads	2	C		C	O
27-38d	New Meter – TOU Read	Time of Use read of the meter at the time of removal/installation.	5	C	Fill all values shown on display	C	O
3639	CT Ratio (PHS 1-2-3)	Current Transformer Ratio between primary and secondary current. <u>FOR NEWLY INSTALLED EQUIPMENT ONLY</u>	10	C		C	O
3740	CT Type (PHS 1-2-3)	CT type listed on face plate. <u>FOR NEWLY INSTALLED EQUIPMENT ONLY</u>	10	C		C	O
3841	CT ID#(PHS 1-2-3)	Unique number assigned by UDC. <u>FOR NEWLY INSTALLED EQUIPMENT ONLY</u>	10	C		C	O
3942	CT Serial # (PHS 1-2-3)	Manufacturer serial number listed on face plate. <u>FOR NEWLY INSTALLED EQUIPMENT ONLY</u>	10	C		C	O
4043	CT use (in/out)	Indoor or Outdoor use of CT. <u>FOR NEWLY INSTALLED EQUIPMENT ONLY</u>	3	C	in or out	C	O
4144	VT Ratio (PHS 1-2-3)	Voltage Transformer Ratio between primary and secondary voltage. <u>FOR NEWLY INSTALLED EQUIPMENT ONLY</u>	10	C		C	O

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4245	VT Type(PHS 1-2-3)	VT type listed on face plate. <u>FOR NEWLY INSTALLED EQUIPMENT ONLY</u>	10	C		C	O
4346	VT ID # (PHS 1-2-3)	Unique number assigned by UDC. <u>FOR NEWLY INSTALLED EQUIPMENT ONLY</u>	10	C		C	O
4447	VT Serial # (PHS 1-2-3)	Manufacturer serial number listed on face plate. <u>FOR NEWLY INSTALLED EQUIPMENT ONLY</u>	10	C		C	O
4548	VT use (in/out)	Indoor or Outdoor use of VT. <u>FOR NEWLY INSTALLED EQUIPMENT ONLY</u>	3	C	in or out	C	O
4649	Rated Primary Amps	Maximum ampacity at which CTs can accurately measure. <u>FOR NEWLY INSTALLED EQUIPMENT ONLY</u>	10	C		C	O
4750	Primary Volts	Primary voltage upon which the performance specifications of a voltage transformer are based. <u>FOR NEWLY INSTALLED EQUIPMENT ONLY</u>	10	C		C	O
48	Add'l Info / Remarks	Additional pertinent information on the removed/installed meter, such as specialized equipment and any general comments				O	
4951	Meter Location:	Any changes to where meter is located at site	250	C		C	O
5052	Mtr Reading Instructions	Any changes or additional information for locating meter, site surroundings and access issues	250	C		C	O
53	Add'l Info / Remarks	Additional pertinent information on the removed/installed meter, such as specialized equipment and any general comments	250	C		O	O
54	IDR Unit of Measure	Channel numbers and related units of measurement					
5254	Manufacturer	Manufacturer of the Meter	7	C		R	O
5355	Model/Meter Type	Meter type listed on the face plate	10	C		R	O
5456	Meter Form	Meter form that contains condensed meter characteristics for the meter	3	C		R	O
5557	Meter Class	Maximum of the watthour meter load range in amperes	3	C		R	O
5658	Meter Voltage	Voltage of the meter. Note if auto ranging	9	C	Auto Or xxx/xxx	R	O
5759	KYZ Output	Number of external output pulses per disk revolution or equivalent (R/I, M/P, etc)	5	C	Required if Ke exists	C	O

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58 60	Most recent calibration test date	Last date meter was tested/calibrated.	<u>10</u>		YYYY/MM/DD	R	<u>O</u>
59 61	Optical Port (y/n)	Yes value indicates meter has optical port for communication with meter and other devices	<u>1</u>	<u>C</u>	Y or N	<u>C</u>	<u>O</u>
60 62	# Display Segments	Number of meter read display segments on solid state meter	<u>2</u>	<u>C</u>		<u>C</u>	<u>O</u>
64 63	Program ID Name	Software program name with which the meter is programmed	<u>2</u>	<u>C</u>		<u>C</u>	<u>O</u>
62 64	Meter Pulse Constant Ke	Watt-hour per pulse value programmed into a solid state meter/recorder. <u>Ke=Kh X R/I divided by 1000. If there is an internal scaling factor, sum of above formula X scaling factor</u>	<u>6</u>	<u>C</u>		C	<u>O</u>
63 65	# of IDR Channels	Number of IDR channels programmed <u>utilized</u> for the meter at the site	<u>2</u>	<u>C</u>	<u>Field 66 and 67 are required if value in this field</u>	<u>C</u>	<u>O</u>
<u>66</u>	<u>UOM/Channel #</u>	<u>Utility standard code for units of measurement:</u> <u>01 = KWH 03 = KVARH</u> <u>Channel # unit of measurement is on</u>	<u>5</u>	<u>C</u>	<u>xx/xx</u>	<u>R</u> <u>If field 65 is filled in</u> <u>C</u>	<u>R</u> <u>If field 65 is filled in</u> <u>O</u>
<u>67</u>	<u>UOM/Channel #</u>	<u>Utility standard code for units of measurement:</u> <u>01 = KWH 03 = KVARH</u> <u>Channel # unit of measurement is on</u>	<u>5</u>	<u>C</u>	<u>xx/xx</u>	<u>R</u> <u>If field 65 is filled in</u> <u>C</u>	<u>R</u> <u>If field 65 is filled in</u> <u>C</u>
<u>68</u>	<u>External Device(y/n)</u>	<u>Yes value indicates meter has external device attached</u>	<u>1</u>	<u>C</u>	<u>Y or N</u>	<u>C</u>	<u>O</u>
<u>69</u>	<u>External Device Type</u>	<u>Device type listed on face plate</u>	<u>8</u>	<u>C</u>		<u>C</u>	<u>O</u>
<u>70</u>	<u>UOM/Channel #</u>	<u>Utility standard code for units of measurement:</u> <u>01 = KWH 03 = KVARH</u> <u>Channel # unit of measurement is on</u>	<u>5</u>	<u>C</u>	<u>xx/xx</u>	<u>C</u>	<u>O</u>
<u>71</u>	<u>UOM/Channel #</u>	<u>Utility standard code for units of measurement:</u> <u>01 = KWH 03 = KVARH</u> <u>Channel # unit of measurement is on</u>	<u>5</u>	<u>C</u>	<u>xx/xx</u>	<u>C</u>	<u>O</u>
64 72	kWh number of dials	Number of visual kWh dials	<u>1</u>	<u>C</u>		R	<u>O</u>
65 73	kW number of dials	Number of visual kW dials <u>including decimal place</u>	<u>1</u>	<u>C</u>		C	<u>O</u>

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6674	kW decimal values	Placement of the decimal point on kW display				C	O
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6775	Kvarh number of dials	Number of visual Kvarh dials	<u>1</u>	<u>C</u>		C	<u>O</u>
6876	Meter Disk Constant Kh	Number of watthours represented by one revolution of the disk <u>include decimal place</u>	<u>4</u>	<u>C</u>		R	<u>O</u>
69777	Meter Register Constant Kr	Multiplier applied to the register reading to obtain kilowatthours (does not include CT, VT ratios)	<u>2</u>	<u>C</u>		C	<u>O</u>
7078	Register Ratio	Number of revolutions of the gear meshing with the worm or pinion on the rotating element for one revolution of the first dial pointer	<u>10</u>	<u>C</u>		R	<u>O</u>
7479	Meter Multiplier	Multiplier applied to the register reading to obtain kilowatthours including the CT and VT ratios	<u>6</u>	<u>C</u>	<u>No leading zeros</u>	R	<u>O</u>
80	<u>Internal Scaling Factor</u>	<u>PENDING DISCUSSION ON 11/29/00</u>					
81	<u>Kwhc</u>	<u>PENDING DISCUSSION ON 11/29/00</u>					
7282	XFMR Loss Comp (y/n)	Yes value indicates compensation incorporated in actual meter programming	<u>1</u>	<u>C</u>	Y or N	R	<u>O</u>
7383	Number of service wires	Wires for the service	<u>1</u>	<u>C</u>	<u>use leading zero</u>	R	<u>O</u>
7484	Delta/Wye	Transformer configuration of the service For 3 phase/3 wire, use Delta For 3 phase/4 wire, use Delta or Wye (choose the appropriate configuration)	<u>1</u>	<u>C</u>	<u>D or W Y</u> <u>SRP service area use Y instead of W</u>	C	<u>O</u>
7585	Service Voltage	Voltage of the service point	<u>10</u>	<u>C</u>		R	<u>O</u>
7686	Customer Lock Cut (y/n)	Yes value indicates customer lock was cut	<u>1</u>	<u>C</u>	Y or N	R	<u>O</u>
7787	UDC lock cut (y/n)	Yes value indicates UDC lock was cut	<u>1</u>	<u>C</u>	Y or N	R	<u>O</u>
7888	Meter Phone # <u>LSS Port</u>	Telephone number attached to the meter or recorder used to upload meter site information	<u>15</u>	<u>C</u>	no formatting, i.e. 1112223333# 44	C	<u>O</u>

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89	Communication Type	If applicable, use one of the following codes: <u>C</u> = Cell Phone <u>S</u> = Shared phone line <u>D</u> = Dedicated phone line <u>R</u> = Radio communication	1	<u>C</u>	<u>C</u> <u>S</u> <u>D</u> <u>R</u>	<u>R</u>	<u>O</u>
79	Cell Phone (y/n)	Yes value indicates meter communication via cell phone.			<u>Y or N</u>	<u>R</u>	
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80	Shared Phone line (y/n)	Yes value indicates meter is sharing lines with other devices i.e. fax machine, handset, etc			<u>Y or N</u>	<u>R</u>	
81	Dedicated Phn line (y/n)	Yes value indicates line dedicated to meter communication			<u>Y or N</u>	<u>R</u>	
82	Radio Comm (y/n)	Yes value indicates meter has a radio communicator that passes data through radio waves.			<u>Y or N</u>	<u>R</u>	